AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Original) A light-emitting device, comprising:

a multi-layer stack of materials including a light-generating region and a first layer supported by the light-generating region,

wherein:

a surface of the first layer is configured so that light generated by the light-generating region can emerge from the light-emitting device via the surface of the first layer;

the surface of the first layer has a dielectric function that varies spatially according to a pattern; and

the pattern has an ideal lattice constant and a detuning parameter with a value greater than zero.

2. (Original) The light-emitting device of claim 1, wherein the multi-layer stack of materials comprises a multi-layer stack of semiconductor materials.

3. (Original) The light-emitting device of claim 2, wherein the first layer comprises a layer of n-doped semiconductor material, and the multi-layer stack further comprises a layer of p-doped semiconductor material.

4. (Original) The light-emitting device of claim 3, wherein the light-generating region is between the layer of n-doped semiconductor material and the layer of p-doped semiconductor material.

5. (Original) The light-emitting device of claim 4, further comprising a support that supports the multi-layer stack of materials.

6. (Original) The light-emitting device of claim 5, further comprising a layer of reflective material that is capable of reflecting at least about 50% of light generated by the

light-generating region that impinges on the layer of reflective material, the layer of reflective material being between the support and the multi-layer stack of materials.

7. (Original) The light-emitting device of claim 6, wherein a distance between the layer of p-doped semiconductor material and the layer of reflective material is less than a distance between the layer of n-doped semiconductor material and the layer of reflective material.

8. (Original) The light-emitting device of claim 7, further comprising a p-ohmic contact layer between the layer of p-doped material and the layer of reflective material.

9. (Original) The light-emitting device of claim 1, further including a current-spreading layer between the first layer and the light-generating region.

10. (Original) The light-emitting device of claim 1, wherein the multi-layer stack of materials comprise semiconductor materials.

11. (Original) The light-emitting device of claim 10, wherein the semiconductor materials are selected from the group consisting of III-V semiconductor materials, organic semiconductor materials and silicon.

12. (Original) The light-emitting device of claim 1, wherein the pattern does not extend into the light-generating region.

13. (Original) The light-emitting device of claim 1, wherein the pattern does not extend beyond the first layer.

14. (Original) The light-emitting device of claim 1, wherein the pattern extends beyond the first layer.

15. (Original) The light-emitting device of claim 1, further comprising electrical contacts configured to inject current into the light-emitting device.

16. (Original) The light-emitting device of claim 15, wherein the electrical contacts are configured to vertically inject electrical current into the light-emitting device.

17. (Original) The light-emitting device of claim 1, wherein the pattern is partially formed of a component selected from the group consisting of holes in the surface of the first layer, pillars in the first layer, continuous veins in the first layer, discontinuous veins in the first layer and combinations thereof.

18. (Original) The light-emitting device of claim 1, wherein the pattern is selected from the group consisting of triangular patterns, square patterns, and grating patterns.

19. (Original) The light-emitting device of claim 1 wherein the pattern is partially formed of holes in the surface of the first layer.

20. (Original) The light-emitting device of claim 1, wherein the detuning parameter is at most about 25% of the ideal lattice constant.

21. (Original) The light-emitting device of claim 1, wherein the detuning parameter is at least about 1% of the ideal lattice constant.

22. (Original) The light-emitting device of claim 1, wherein the pattern corresponds to a substantially randomly detuned ideal pattern.

23. (Original) The light-emitting device of claim 1, wherein the pattern is configured so that light emitted by the surface of the first layer has a spectrum of radiation modes, and the spectrum of radiation modes is substantially the same as a characteristic emission spectrum of the light-generating region.

24. (Original) The light-emitting device of claim 1, wherein the light-emitting device is selected from the group consisting of light-emitting diodes, lasers, optical amplifiers, and combinations thereof.

25. (Original) The light-emitting device of claim 1, wherein the light-emitting device comprises a light emitting diode.

26. (Original) The light-emitting device of claim 1, wherein the light-emitting device is selected from the group consisting of OLEDs, flat surface-emitting LEDs, HBLEDs, and combinations thereof.

27-74. (Cancelled).

75. (Previously Presented) The light-emitting device of claim 1, wherein the surface of the first layer has features with a size of less than about $\lambda/5$, where λ is a wavelength of light that can be generated by the light-generating region and that can emerge from the light-emitting device via the surface of the first layer.

76-77. (Cancelled).

78. (New) The light-emitting device of claim 1, wherein the detuning parameter is at most about 20% of the ideal lattice constant.

79. (New) The light-emitting device of claim 1, wherein the pattern is configured so that light generated by the light-generating region that emerges from the light-emitting device via the surface of the first layer is more collimated than a lambertian distribution of light.

80. (New) The light-emitting device of claim 1, wherein at least about 60% of the total amount of light generated by the light-generating region that emerges from the light-emitting device emerges via a surface of the light-emitting device.

81. (New) The light-emitting device of claim 1, wherein the light-emitting device has an edge which is at least about 1 mm.

82. (New) The light-emitting device of claim 1, wherein the surface of the first layer is an upper surface of the multi-layer stack.

83. (New) The light-emitting device of claim 1, further comprising a layer formed on the surface of the first layer.

84. (New) The light-emitting device of claim 83, wherein the layer formed on the first layer is an encapsulant.

85. (New) The light-emitting device of claim 1, wherein the first layer has a thickness of at least of about 100 nm.

86. (New) The light-emitting device of claim 1, wherein the first layer has a thickness of most about 10 micron.